



SANYO Semiconductors

# DATA SHEET

## RG2006LN — Diffused Junction Silicon Diode Low VF · High-Speed Switching Diode

### Features

- High breakdown voltage ( $V_{RRM}=600V$ ).
- High reliability.
- One-point fixing type plastic mold package facilitating easy mounting and heat dissipation.
- Fast reverse recovery time.
- Low noise at the time of reverse recovery.

### Specifications

Absolute Maximum Ratings at  $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		600	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		600	V
Average Output Current	$I_O$		20	A
Peak Output Current	$I_{OP}$	$PW \leq 100\mu s$ , duty cycle $\leq 50\%$	40	A
Surge Forward Current	$I_{FSM}$	Sine wave, 10ms	180	A
Junction Temperature	$T_j$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

Electrical Characteristics at  $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=1mA$	600			V
Forward Voltage	$V_{F1}$	$I_F=10A$		1.45	1.6	V
	$V_{F2}$	$I_F=20A$		1.8	2.1	V
Reverse Current	$I_R$	$V_R=600V$			100	$\mu A$
Reverse Recovery Time	$t_{rr1}$	$I_F=10A$ , $di / dt=100A/\mu s$			50	ns
	$t_{rr2}$	$I_F=0.5A$ , $I_R=1A$		16		ns
Thermal Resistance	$R_{th(j-c)}$	Junction-Case : Smoothed DC			3.22	$^\circ C / W$

Package Dimensions

unit : mm (typ)

7509-004

